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REACH (RAISING EDUCATIONAL ASPIRATIONS OF THE CULTURALLY HANDICAPPED).

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AN INTENSIVE PRESCHOOL PROGRAM OF HOME TEACHING AND GUIDANCE WAS CONDUCTED WITH 30 RURAL AREA DISADVANTAGED CHILDREN. THE SAMPLES WERE GROUPED INTO (1) AN EXPERIMENTAL GROUP THAT RECEIVED 21 WEEKS OF HOME TEACHING, (2) A CONTROL GROUP THAT RECEIVED ATTENTION THROUGH HOME VISITS, AND (3) A CONTROL GROUP THAT RECEIVED ONLY THE TESTING. THE INSTRUMENTS USED FOR MEASUREMENT WERE THE STANFORD-BINET, VINELAND SOCIAL MATURITY SCALE, ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITIES, COLUMBIA TEST OF MENTAL MATURITY, PEABODY PICTURE VOCABULARY TEST, AND THE PLATTSBURGH ARITHMETIC READINESS INVENTORY. THE ANALYSIS OF VARIANCE WAS USED AND THE 0.01 LEVEL OF CONFIDENCE ADOPTED IN THE ANALYSES OF DATA. THE RESULTS INDICATED THAT THE PUPILS DID PROFIT, TO SOME EXTENT, FROM THE TEACHING PROGRAM, AND ALSO THAT PARENTS ARE WILLING TO COOPERATE IN HOME-TEACHING PROGRAMS. FINALLY, THE USE OF TELEVISION AS AN INSTRUCTIONAL MEDIUM WAS FOUND TO BE FEASIBLE. (RS)

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REACH (Raising Educational Aspirations of the Culturally Handicapped)

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Problem

Northern New York's Clinton County was the setting for the proposed research. The County was part of an economically depressed, non-urban area. Everly (1964) reported that E.Glavin, Chairman of the local Joint Committee for Economic Opportunity, made public the following facts which support this generalization:

> (1) Unemployment in Clinton County is higher than the state average, and it is nearly twice the national average. (2) Ten percent of the County's workforce are without employment. (3) Twenty percent of the persons in the 16-21 years age group are unemployed. (4) More than 5,000 families subsist on an annual income of less than $5,000 per family, and more than 2,000 families make less than $4,000. (5) Clinton County's welfare case load rose thirty percent in the past year.

In December 1964, there were 3,000 persons on the welfare rolls.

The following excerpt from a report of Stoner-McLaughlin's (1964) survey conducted in the area alludes to an interaction between education and economics which probably contributes to the economic conditions described above:

> During the year 1961 the State Department of Commerce reported that there were 825 major new and expanded manufacturing facilities planned, underway or completed in the State. None of these larger operations were located in the Tri-County Area (Clinton, Essex and Franklin Counties). It is important to note that a good supply of common labor and no supply of skilled labor and facilities for training in skills is not an inducement for industry to move into an area.

The report presented data regarding the class which graduated from the Clinton County high schools in June 1963. The data indicated that 28.6 percent of the students in the group left school between the ninth and twelfth grades. High school officials in the area were of the opinion that most of the youths who drop out of school are culturally deprived. The same officials believed the dropouts are over-represented among the ranks of the unemployed reported above.

At least one major pre-school and primary education project (1964) was the result of a state-wide, long-range action to deal with the problem of high school dropouts. This project, which was developed by the State of Pennsylvania and carried out in Philadelphia, was based on the assumption that the 'dropout' usually has a record of mediocre or poor achievement in school from the very beginning.

Much of the lack of success in school among pupils in northern New York

stems from the inadequate intellectual, social, and emotional background possessed by the children from low income homes at the time of school entrance. Any measures to alleviate this situation must start with the children and their parents in the home prior to school entrance. These beliefs are shared by members of the staff of the State University College, Plattsburgh, who have had years of experience in preparing teachers and with conditions impinging upon the schools in Clinton County; by local educators; and by authorities regarding the education of culturally deprived children. These assumptions are like those upon which preschool educational programs have been developed in many metropolitan centers all over the country. It would be unwise, however, to assume that similar programs could be easily established under the conditions which exist in rural areas.

In northern New York and other rural areas of the country, it would be very costly to transport children to nursery schools located on existing school sites. Very few of the schools have room for pre-kindergarten classes, and it would be very difficult to find qualified personnel to teach such classes. It should also be pointed out that the school districts which have the greatest number of disadvantaged children also are the districts which can least afford to add pre-kindergarten classes to their schools.

The education of 4-year-old disadvantaged children in rural sections of the country might well be conducted in the children's homes. Home teaching would avoid some of the obstacles standing in the way of the establishment of pre-kindergarten classes in rural schools. Conventional home teaching might be more expensive than classroom teaching but if home teaching were successful, it might be conducted through the media of television. Educational television not only could make it possible to reach both children and their parents but it would also obviate the necessity of employing a large number of teachers for home teaching.

The study's main purpose was to test the following hypothesis: a prescribed program of home teaching can improve some of the understandings, attitudes, and skills of disadvantaged pre-school children which are essential for success in school. If a pilot study were to support the hypothesis, the next step would be to conduct a study to test a similar hypothesis with regard to televised teaching.

The study's second purpose was to determine the feasibility of developing learning experiences for pre-school, disadvantaged children which not only would show promise of developing specific learning objectives but which could be adapted to television instruction. The pilot study was expected not only to test the effectiveness of home teaching but to lead to the production of ideas, materials, plans, and experiences which could be used in the production of television lessons to be used in a follow-up study.

The study's third purpose was to assess the practicability of teaching pre-school, rural disadvantaged children in their homes and of enlisting the cooperation of parents, making the teaching successful. There seemed to be no precedent for the type of teaching envisioned in the pilot study. There was some question, among the people involved in the planning of the study, concerning whether or not it would be possible to enlist the cooperation of enough parents to make it possible to conduct a year-long home-teaching program. Lower-class adults are described in social stratification studies (Hollingshead, 1949; Hollingshead and Redlich, 1957) as being antagonistic and suspicious towards representatives of community agencies. If it were possible to carry out the home-teaching program, it could be concluded that it is possible to enlist the cooperation of disadvantaged families in Clinton County for such educational programs.

The study's fourth purpose was to determine whether or not it is possible to develop among the parents of disadvantaged, rural children the following:

(1) higher educational aspirations for their children, and (2) increased knowledge and skill in preparing their children to demonstrate at least satisfactory achievement in school.

There is a good deal of evidence that culturally handicapped children are deficient in their ability to use language, in their skill in perceiving and discriminating things related to school work, in their store of concepts, and in their self concept. Milner (1951), in her study of 111 first graders from different socio-economic groups, found that the middle-class youngsters tended to be over represented in the group making the highest scores on the verbal sub-test of the CTMM. Furthermore, the lower-class children were over represented among the lowest scoring group. Milner concluded that the high scoring youngsters were surrounded by a much richer verbal environment, had more books available to them, etc., than the low scoring group.

Bernstein (1960,1961a,1961b,1961c,1962) maintains that youngsters socialized within different social classes develop different styles of language usage. His generalizations stem from his experience teaching speech to English students from differing social backgrounds. Bernstein concludes that lower-class children who have been socialized to use a "restricted code" in speech find it extremely difficult to deal with the "elaborated code" used by teachers and middle-class classmates.

Martin Deutsch (1963) has hypothesized that culturally deprived urban children are deficient in knowledge of the meaning of words used in school, in using a series of words to unify and relate ideas, and in organizing expressive language in a more formal fashion. Vera John (1962) has reported empirical evidence supporting some of Deutsch's propositions.

Deutsch has also asserted that culturally disadvantaged youngsters lack the type of auditory and visual discrimination skills necessary for success in school. Cynthia Deutsch's (1962) studies of these children's auditory discrimination have provided support for Martin Deutsch's assertions.

In his study of the knowledge of concepts possessed by children from different social-class backgrounds, Siller discovered that a small proportion of the lower-class youngsters in his sample were markedly deficient in this respect. Hunnicutt and others (1963), in surveying students in selected middle-class and lower-class schools in Syracuse, N.Y., found marked differences between students' knowledge of concepts. The youngsters in the middle-class elementary schools made better scores on the Peabody Picture Vocabulary Test than did the students from the lower-class schools.

Although there is strong evidence that culturally disadvantaged children have serious handicaps which limit their achievement in school, studies indicate that well-designed, intensive, and extended enrichment programs for 4-year-olds can reduce the handicaps. Klaus and Gray (1963) are conducting a study of the effects of summer instruction of varying lengths of time and frequency upon the behavior of pre-school, culturally handicapped children. These researchers' interim report indicates that they have been successful in improving the IQ's of the experimental groups. Smilansky (c.1964) has reported on the efforts of the Szold Institute and other agencies in Israel to improve the measured intelligence of children whose families have immigrated to that country from Asia. His findings indicate that such efforts resulted in the experimental groups' making greater gains in IQ than the control groups. Dawe (1942) conducted a study with orphanage children who, in many respects, suffer from cultural and social deprivation. His experimental group's average IQ score increased from 80.6 to 94.8 as a result of fifty hours of training over a ninety-two day period. The control group's average IQ decreased from 81.5 to 79.5 in the same length of time.

The Denver Public Schools (1962) carried out a televised instructional program for the parents of kindergarten children. The subjects were not culturally deprived. Certain parents have for years carried on informal activities which contribute to their children's early and effective reading. This project was designed to find out whether parents, with professional assistance and direction,

could systematize and accentuate such activities to their children's benefit. Parents who signed up for the project received a teaching manual to use in connection with sixteen televised instructional programs planned to provide the parents with the assistance mentioned above. The project's findings showed that the best performance on the criterion reading readiness test was made by children who had done both of the following: (1) practiced for more than thirty minutes per week the beginning reading activities shown in the televised programs, and (2) had been read to more than sixty minutes per week. This conclusion suggests that television can be used successfully to teach parents how to prepare their 5-year-old children for some of the important learning tasks which the children will subsequently meet in school.

The studies which have been reviewed show that disadvantaged,pre-school children are deficient in certain skills, attitudes, and knowledge compared to children who are not disadvantaged. Unless disadvantaged children are helped to overcome these deficiencies before they begin school, the prognosis for the children's success in school will continue to be extremely poor. Therefore, disadvantaged children need to receive an educational program designed to overcome their deficiencies prior to enrollment in kindergarten. The studies which have been summarized also indicate that it is possible to carry out successful educational programs of this type in pre-school classrooms. One study shows that a program designed to teach children rudimentary reading skills by educational television can be effective.

Procedures

A randomized-block design with three equal-sized sub-samples was employed in the experiment. The blocks were formed on the basis of the IQ scores obtained when the Stanford-Binet Intelligence Test was administered as part of the process of selecting children for the sample. The three sub-samples were a home teaching group, a home visitation group (placebo), and a control group.

Sample.--The Welfare Commissioner of Clinton County and three school nurses employed in different school districts in the same county were asked for a list of families which fulfilled the following criteria: (1) had no members with very serious mental, physical, or emotional illness; (2) had no record which showed that it would be difficult to establish a working relationship with the family; (3) had an income of no more than $3,000 a year, unless there were six or more children in the family; (4) had not been residing in a village larger than 2,500 inhabitants; (5) had a child possessing adequate* intelligence; and (6) had a child with a birthdate between December 1, 1959 and December 1, 1960. The Welfare Commissioner and school nurses provided the research staff with a list of almost sixty families.

The study's Assistant Coordinator and a worker contacted most of the families on the initial list in order to do the following: (1) determine if the families fulfilled the above criteria; (2) find out if the parents would cooperate in the study; and (3) administer the Stanford-Binet Intelligence Test (Form L-M) to the prospective subjects. As soon as the staff members obtained 30 subjects, the subjects were assigned to the three sub-samples or groups using a table of

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*Because of the difficulties involved in testing disadvantaged, pre-school children, no hard-and-fast cutting point for IQ was used to select the subjects. An interval of 65 to 75 Stanford-Binet IQ points was used as the selection criterion. A child whose IQ fell within this interval was included in the sample provided the tester felt that the child's true IQ were at least 75. Only three children who fell within this range were selected.

random numbers and watching the subjects for each group for I.Q.

During the experiment, one child was lost from the control group when his parents moved from Clinton County.

Descriptions of the experimental treatment and the placebo.--The experimental treatment and the placebo consisted of two forty-five minute sessions with each subject every week for twenty-one weeks.

The experimental home-teaching program was designed to develop the following learning objectives:*

1. Ability to communicate effectively
   a. Ability to label objects
   b. Ability to relate experiences with objects and people to others
2. Ability to attend to significant stimuli
   a. Skill in auditory discrimination
   b. Skill in visual discrimination
   c. Skill in sustaining attention
3. Knowledge of selected basic concepts
   a. Knowledge of such physical concepts as size, shape, color, number, space, time, and temperature
   b. Knowledge of social concepts such as grooming, social amenities, and personal hygiene
   c. Knowledge of concepts such as animals, plants, and weather, as they are found in the subjects' immediate environment
4. Knowledge of physical self, i.e., understanding of parts of the body and physical appearance
5. Appreciation of self, i.e., development of a worthy self-image

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*See Appendix A for a list of the kinds of experiences which the teachers provided their pupils in order to develop the objectives.

Almost all of the home teaching was done by the Assistant Coordinator. She was experienced in the teaching of both primary-grade and mentally retarded children in rural schools, and she was trained in the field of Special Education. The Assistant Coordinator taught all of the ten children in the home-teaching group until the last 11 weeks of the program. During the final 11 weeks, two of the children who had been taught by the Assistant Coordinator were taught by the College's Nursery School Teacher. The Nursery School Teacher has had many years of experience teaching 4-year-old children. She has also had experience teaching the parents of disadvantaged children in Clinton County.

The Nursery School Teacher, the College's Kindergarten Teacher and the Research Coordinators had worked on the curriculum for the home teaching before the instruction began. During the later half of the program, the Nursery School Teacher was able to release the Assistant Coordinator from part of her teaching so that the latter could devote more time to prepare records of the home teaching.

The home teachers used a variety of activities to develop the learning activities.* The following activities illustrate the nature of the experiences given the pupils: discussing the pupils' experiences; retelling of stories by the children using pictures; listening to records; taking field trips; matching, counting, grouping, and measuring using blocks, toys,and pictures; and listening to stories about animals which were familiar to the children. The teachers wrote daily lesson plans** one week in advance, and each lesson was aimed at developing the anticipated learning outcomes.

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*See Appendix A for list of these activities.

**See Appendix B for a sample lesson plan.

The lessons were also designed in such a way as to afford a basis for preparing subsequent educational television lessons in case they were needed. The teachers wrote evaluations of their lessons, which provided a basis for some of the conclusions drawn from the study. While the home teachers were in the pupils' homes, the teachers encouraged the pupils' parents to replicate the lessons which the teachers conducted.

Each of the ten children in the placebo group were visited by one member of a team of ten women. The women volunteered to assist the research staff to conduct this phase of the study. The main purpose of the placebo was to estimate the impact of what is frequently referred to as the Hawthorne effect. The research staff was also interested to see how effective the home visitation could be in developing the learning objectives. If the visitation program produced measurable effects, the finding would suggest that non-professional workers could be quickly trained to effectively teach disadvantaged children. Most of the ten volunteers who provided blind attention to the placego group were wives of faculty members at the College, wives of personnel at the Plattsburgh Air Force,or students enrolled in teacher preparation at the College. The visitors carried out activities designed to provide the group with an amount of attention which was comparable to the attention given the home-teaching group. The visitors gave the children toys which had minimal educational value but the visitors did not instruct the children in the use of the toys. The volunteers spent much of their visiting time conversing with the parents.

The ten children in the control group were not contacted by members of the research staff except for the purpose of screening the children for inclusion in the sample and administering the tests to the children.

Analysis of the Data and Findings

Qualitative findings.--The two staff members who taught the children in the home-teaching group not only prepared lesson plans* for each days teaching but also wrote an evaluation of each lesson. While making their visits, both teachers talked with their pupils' parents and asked them questions. The teacher's questions were aimed at uncovering any changes which the teachers may have brought about in the behavior of family members other than the pupil. The beginning of this part of the report is a summary of the lesson evaluations and consists of findings based upon a great deal of qualitative data collected by the teachers. The rest of this section consists of a list of changes which the teachers felt their teaching had made in their pupils' families.

The home teachers used at least four different methods of collecting data for their evaluations: (1) The teachers observed their pupils' behavior for evidence that the pupils were learning the anticipated learning outcomes in the teachers' plans. Sometimes the teachers would devise situations to assess what their pupils were learning. For example, the teachers checked the youngsters understanding of the concept weather by asking them to select from various articles of clothing those garments which would be appropriate for a given type of weather. (2) The teachers questioned the pupils' parents about what the pupils did between the teachers' visits. (3) The teachers gained corroboration of their evaluations from other members of the research staff and kindergarten teachers who sometimes accompanied the home teacher and watched her teach. (4) The teachers recorded on a tape recorder most of their lessons with their pupils, and the teachers used the transcriptions as an aid in writing their evaluations of the lessons.

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*See Appendix B for a sample of a lesson plan.

The summary of lesson evaluations was organized around the four main teaching objectives used to guide the development of the curriculum for the home-teaching group and, consequently, each lesson plan.

The first objective was to improve the child's ability to label objects and to relate to others his experiences with the objects. The children in the home-teaching group showed an increased willingness to talk with people outside of the family as a result of the instruction the children received. There was an increased growth in the children's ability to verbalize. There was also an increase in their use of descriptive terms--especially words relating to color, number, size, and shape. It was evident that the children became more adept at talking in complete and longer sentences. Members of the childrens' families began to converse much more with each other.

The second objective was to improve the child's auditory and visual discrimination skills and to increase his attention span. There was little if any progress in the children's ability to reproduce rhythmic patterns. The children learned to pay a great deal more attention to visual details in pictures than they were able to do in December. The children also demonstrated an increased ability to see relationships and to find meaning in pictures. The members of the home-teaching group became less and less distracted when listening to stories even though the teacher selected successively longer and more complex stories to read. A marked improvement was demonstrated by the children in following directions and persisting in the completion of different tasks.

The third objective was to increase the child's knowledge of basic physical, environmental, and social concepts. The children displayed a better understanding of the concepts of size, shape, color, and number. Space, time, and temperature were concepts which the children had the greatest difficulty learning compared to the other concepts which the teachers tried to teach. Progress was made in developing concepts about household pets, the more common farm animals, and native wild life because it was possible to provide the youngsters with first-hand experiences

with the animals. During the spring of the year, the children exhibited an exciting awareness and curiosity about living things growing in each child's yard and immediate neighborhood. This led to an increased understanding of certain environmental concepts on the part of the children. The subjects in the home-teaching group demonstrated little improvement in using such concepts as sunshine, rain, and wind, even when the subjects were encouraged to tell something about the concepts. Many of the children were never able to use the concepts even when directly experiencing the effects of the concepts' referents. Courtesy and consideration was consistently shown to the teacher by the children. The youngsters readily imitated certain practices of their teacher such as the use of the words please and thank you as well as phrases expressing approval and appreciation. When the children were provided an opportunity to practice table manners, the youngsters were anxious to learn to "do the right thing."

The fourth objective was to enhance the child's self-concept by increasing his knowledge of physical self and by helping him to develop a worthy self-image. There were exciting changes in the children's self-concepts as a result of the home-teaching program. Almost weekly, more positive feelings about self became apparent to the observers. The children displayed a greater willingness to attempt new or difficult tasks, and they grew in their ability to accept their mistakes or frustrations matter-of-factly. They took great pride in each new accomplishment, and there was much more spontaneity in all their overt responses.

While the work of the home teachers was aimed primarily at bringing about behavioral changes in the 4-year olds comprising the home-teaching group, the home teaching was also aimed at producing certain changes in the conduct of other members of the families--particularly the parents.

The home-teachers felt that there were at least nine significant kinds of changes which occured among the members of the families with which the teachers worked and which could be attributed to the home-teaching program. (1) The parents took more interest in helping their children develop an appreciation for

books and stories. (2) The parents and older siblings developed the habit of reading stories to the younger siblings. (3) The parents developed a keener insight into why it is important for children to experience certain prescribed, developmental tasks prior to entering school. (4) The parents learned to be more interested and concerned with the education of all their children. (5) The parents learned to be much more active and interested in providing their children with a better background of experiences prior to entering school. (6) The members of the families acquired a greater pride in the cleanliness, dress, and grooming of the children in the home-teaching group. (7) The members of the families acquired greater skill in communicating with each other as a result of reconstructing activities which the teacher had carried out with the pre-school child. (8) The subjects' siblings learned the value of sharing. (9) The subjects' younger siblings appeared to have learned many of the same concepts, interests, and values learned by the subjects themselves.

Quantitative findings.--The mean mental age scores from the Stanford-Binet post-test were computed for each of the three groups of subjects used in the experiment. The mean MA scores were as follows: home-teaching group, 53.5; home-visitation group, 55.5; and control group, 54.8. Analysis of variance was used to test the null hypothesis that there was no difference between the observed means. In computing the analysis of variance, it was necessary to estimate the MA score of a subject who was lost to the experiment. The method used to make the estimate tends to inflate the treatments mean square (Snedecor, 1946); therefore, a rigorous .01 level of confidence was adopted. Table 1 shows the results of the analysis of variance. The results show that the value of 0.28 for F does not even approach the 6.01 associated with the .01 level of confidence. The null hypothesis that the subjects in the three groups did not differ with regard to their MA scores on the Binet post-test was accepted.

TABLE 1

Analysis of Variance for Stanford-Binet MA Scores on Post-test

Source of variation	Sum of squares	df	Mean squares	F	$F_{.01}$
Treatments	20.6	2	10.30		
Blocks	581.2	9	64.58	0.28	6.01
Residual	653.4	18	36.30		
Total	1255.2	29			

Mental age scores were used as measures of subject growth rather than IQ scores. Post-test scores were used as the criterion rather than gain scores, because it was felt that the pre-test scores were subject to more testing error than post-test scores. Gain scores would reflect the testing error which effected the pre-test scores but post-test scores would not.

The mean Peabody Picture Vocabulary Test MA scores of the subjects in each of the three groups were as follows: home-teaching group, 44.6; home-visitation group, 50.4; and control group, 44.1. Table 2 shows the results of an analysis

TABLE 2

Analysis of Variance for Peabody Picture Vocabulary Tests MA Scores on Post-test

Source of variation	Sum of squares	df	Mean squares	F	$F_{.01}$
Treatments	245.3	2	122.65		
Blocks	952.3	9	105.81	1.78	6.01
Residual	1241.4	18	68.97		
Total	2439.0	29			

of variance of the MA scores from the PPVT. The obtained F equaled 1.78, which falls considerably short of the 6.01 associated with the .01 level of significance. The null hypothesis that the three groups did not differ with regard to their members' MAs, as measured by the PPVT, was accepted.

The Illinois Test of Psycholinquistic Abilities was not used as a third criterion measure as originally planned. All of the tests used in the experiment were administered individually because to have brought all the subjects together in a strange environment for testing would probably have introduced a source of considerable error. Administering the instruments individually in the subjects' homes was very time consuming. The Illinois Test of Psycholinquistic Abilities was not used in the experiment in order to save the valuable time which had been allotted to the treatment period. The time for the treatment had already been reduced due to a delay in the negotiation of the research contract with the U.S. Office of Education. Although it had been planned to start the study on September 1, 1964, the contract was not finalized until November 16, 1964.

Conclusions

The qualitative findings indicate that the home teaching program improved some of the understandings, attitudes, and skills of disadvantaged,pre-school children. However, some of the learnings were achieved to a greater extent than others. The pupils made observable gains both in the effectiveness and the amount of their use of speech. The pupils' attention spans increased, and the children grew in their ability to interpret pictures. Little growth was observed in their ability to reproduce rhythmic patterns. The pupils' understanding of concepts with abstract referents probably did not improve. The children were observed to improve with regard to self-concept, i.e., they became more confident in their ability to attack new tasks in the classroom.

The home teachers observed changes which took place in the behavior of the pupils' parents. The parents began to appreciate the importance of providing

in their home a curriculum which could help their children when they enter school. The mothers and fathers also learned some techniques for teaching this curriculum.

The home teachers not only were confident that learning had taken place along the lines indicated by the objectives but that their pupils also had learned certain behaviors which were not explicitly stated in the objectives. The behaviors are expected of children entering kindergarten. Learning to eat with eating utensils, to use certain social amenities, and to follow directions are examples of behavior which the children probably learned as a result of the home teaching but which were only implied in the statement of objectives.

The qualitative findings also suggest that valuable learning which was not tapped by the Stanford-Binet or the Peabody Picture Vocabulary Tests had taken place. The term valuable learning is used to mean the learning of behavior which kindergarten teachers expect children to exhibit when they enter school. Development of a positive self-concept is an example of this kind of learning.

The quantitative findings indicate that the home teaching did not produce a measurable improvement in the anticipated learning outcomes among the disadvantaged, pre-school children who received the instruction.

The interpretation of the findings is less than clear cut because of an unavoidable weakness in the design of the study. The non-availability of an achievement test with high content validity in terms of the home-teaching program is the main reason for the weakness. Standardized achievement tests, such as the Iowa Tests of Basic Skills, are not available for evaluating the education of disadvantaged, pre-school children. To have developed more appropriate criterion measures for this study would have been a major project in itself.

The study conclusively demonstrates that the parents and children in disadvantaged families in Clinton County are willing to closely cooperate with both professional and non-professional workers in a pre-kindergarten educational

program of the type which was carried out.

The staff of Project REACH concluded from their experience with the project that it is feasible to use television as an instructional media in the education of disadvantaged, pre-school children. On February 26,1965, the State University College, Plattsburgh, sent to the U.S. Office of Education a research proposal requesting funds to conduct a follow-up study using television. The proposal was not accepted.

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APPENDIX A

Activities Designed to Develop Learning Objectives

I. To improve the child's ability to communicate effectively

A. Labeling

1. Reading stories about things familiar to the children, e.g., stories involving objects, toys, and animals
2. Having extensive discussions and participating in activities with regard to concrete objects
3. Singing songs related to particular topics
4. Using pictures as a beginning step in dealing with abstractions
5. Using varied guessing games requiring child to find specific objects

B. Relating experiences and feelings to others

1. Retelling stories using pictures
2. Tape recording and listening to conversations with children
3. Reconstructing events by use of animal puppets
4. Conversing via toy telephone which also extended child's imaginative skills
5. Using field trips as motivation for extensive discussion prior to, during, and after each trip

II. To improve the child's ability to attend to significant stimuli

A. Auditory discrimination

1. Listening to recordings of high and low sounds
2. Reproducing rhythmic patterns using bells, clapping blocks,etc.
3. Listening to stories
4. Listening to records, including those with low and high sounds
5. Practice in the following of verbal directions

B. Visual Discrimination

1. Providing activities in color discrimination, e.g., matching colors and finding specific colored items

2. Providing activities in sensory perception employing observation of texture,color, shape, and size
3. Providing field trips to provide a wide range of observation
4. Providing opportunities to discern similarities and differences using toys, story illustrations, environmental objects, and the like

C. Sustained attention: gradual lengthening of the time alloted to and the complexity of various activities

III. Concept building

A. To help the child develop basic physical concepts

1. Size - providing varied experiences with block building, sensory perception games, comparison of familiar objects in terms of big-little, tall-short, large-small, and high-low
2. Shape - providing experiences with blocks, balls, paper cutting and pasting, Play-Doh, and sensory perception games
3. Color - providing experiences with paint, crayon, paper, concrete materials of varying color. Extensive use of colored pictures and story illustrations
4. Number - providing experiences in matching, counting, grouping, measuring using blocks, toys, pictures and other available objects
5. Space - structuring with blocks, arranging material in a collage, use of puzzles and other manipulative toys
6. Time - providing activities and encouraging discussions related to birthdays, holidays, seasons, etc.
7. Temperature - distinguishing between hot and cold using snow, ice, heated stove, and hot and cold water as aids.

B. Social and environmental concepts

1. Social amenities

a. Providing supervised practice in washing hands and face, cleaning teeth, and brushing hair

b. Taking occasional adult guests taken into the home

c. Eating luncheon at a local restaurant

d. Visiting the school that the child would attend in the fall

2. Animal life

a. Presenting pictures of animals familiar to the child

b. Reading stories about animals familiar to the child

c. Singing and listening to songs about animals

3. Plant

a. Collecting flowers out-of-doors

b. Collecting buds, seedpods, leaves, and weeds to be used in collages

c. Gathering and preparing plant life to feed animals

d. Listening to stories emphasizing growing things

4. Weather

a. Providing actual out-of-door experiences, taking a walk on a cloudy,windy day, using the out-of-doors as the "school room"

b. Playing shadow games and listening to stories and records centered around rain, snow, sunshine and wind

IV. To help the child develop self-concepts

A. Knowledge of physical self

1. Labeling parts of the body

2. Using implements to care for the body (hairbrush, toothbrush, soap, washcloth and towel)

3. Using activity records which emphasized the name and movements of various parts of the body

4. Photographing each child

B. Worthy self-image, as a result of mastery of skills, etc.: using a wide variety of experiences in which the child could be approved for his efforts and gain an awareness of his progress and success

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APPENDIX B

ACTIVITIES	MATERIALS	OBJECTIVES	PROCEDURES	OUTCOMES
Story	"My Hopping Bunny"	IA,B IIA,B,C,	Child looked at all the pictures and was asked to tell "what was happening." Explanations of unfamiliar objects and events were given when needed. Story was read with as few interruptions as possible in order to hear the rhyming and meter of the words.	Big improvement in picture interpretation. Not only did child label and point to objects and ask questions about the unfamiliar, but with the help of questions could often tell some of the things "that were happening." New word-"steeple." Totally unfamiliar with circus except to name clown and monkey
Guessing Game	2 paper bags, bracelet, spoon, large button, scissors, spool of thread, large nail, crayon, toy can, small plastic cup.	IA,B IIIA2 and texture	Familiar but unseen objects placed one at a time in small paper bag while child closed his eyes. Child felt the object and called it by name before looking at it. How does it feel - hard, long, round? etc. Ex.- scissors - how do you know? Can you feel the round holes where your fingers go? Can you feel the long flat part that cuts the paper?	Much enthusiasm. Very successful in identifying objects & naming them. Could describe how it felt only meagerly when asked direct questions. Very good at closing eyes & keeping them shut until I said "Ready."
Manipulative and dramatic playactivity.	Individual portions of home made dough in small plastic balls. Popsicle stick 3 parts flower 2 parts salt blue food coloring water Makes 6 good sized "servings"	IA,B	Children were encouraged to describe & relate what they were doing. "patting," "pounding," "cutting," etc. making cookies, making doughnuts, etc. Children were shown how to pick up the "crumbs" by patting with the ball of dough.	Much excitement. Everyone talked at once.